

	-- A HELIX --     ----- B HELIX -----     C HELIX	
	*	
SWMb	VL-----SEGEQLVLMNAKVEADVA-----GHGQDILIRLEKSHPETLEK	42
HemAT-Hs	MSNDNDTLVTADVRNGIDCHALADRIGLDE--AEIAWRISFTGIDDDTMAAIAAEQPLFEAT	60
HemAT-Bs	LEFKKDRKQETAYFSDSNGGQKN-RIQLTNKEADVKKQLKMRVLRGDARLYALEQLQPLIQEN	61
	D HELIX     ----- E HELIX -----     - F HELIX	
	*	
SWMb	-----FDRFKHLKFEAEMKASEDLKHHGVTVL--TATGAILKK-KGHEAE-----LKPTLAQS	92
HemAT-Hs	ADALVTDF--YDHLESYERTQDLFEANSTKRVFQLKETQAEVLLGLGRGEYDTEYAAQARIGKI	122
HemAT-Bs	LVNIVDAF--YKNLDHESSEIMDLEI-NDHSSVDRLKQTLKRHIQENFAGVIDDEFIEKRNRIASI	122
	----- G HELIX -----     ----- H HELIX -----	
	*	
SWMb	HATKKHPIKYLEEETSEALIHVILHSRHPGDRGADAQGAANKALELERKDIAA-KYKELGYQG	153
HemAT-Hs	HDVGLGPPDVYLGAYTRYTGILDALADDVADRGEEAANAAYDELAVARFLPMIKILTFEDQQI	184
HemAT-Bs	HIRJGLLPKWNNGAFQELLELSNIDIN-----EASTINQQELLEKALKATTKIUNLEQQQL	175

FIG. 1A

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SWMb SEQ. ID. No. 76  
HemAT-Hs SEQ. ID. No. 77  
HemAT-Bs SEQ. ID. No. 78



K1

\*\*\* \*\* \*\*

Tsr 324  
HemAT-Hs 283  
HemAT-Bs 259

LMRTVGDVRNGANA IYSGASEIATGNNDLSSRTEQQAASLEETAASMEQLTATVVKQNAENAR  
LEATSQDVAERTDTNRRATDDQVDRMADVSRREISSVSASVEEVA STADDVRRTSSEDAEALAQ  
LHQTQETSGSIANLESETSRSVQELVDKSEGISQASKAGTVTSSSTVEEKSIGGKKELEVQQ

HCD

Tsr 386  
HemAT-Hs 345  
HemAT-Bs 311

QASHLALSASETAQRGCKVVDNVVQTNRDISTSSQKIADIIISVIDGIAPQTNILALNAAVEA  
QGEAANADDALATNTDIDEATDGVTAGVEQLGERAADVESVTGVIDDIAEQTNMLALNASIEA  
K-----QNNKIDTSLVQIEKENVVKLDEIAQQIEKIFGLVTGIAEQTNLLSLNASIES

HCD

Tsr 448  
HemAT-Hs 407  
HemAT-Bs 366

ARAGEQGRGFAVVAGEVRNLAQRSAAAREIKSLIEDSVGKVDVGVSTLVESAGETNAEIVSA  
ARAGEAGECFVAVADEVKALAEESREQSTRVEELVEQMQAETETVDQLDEVNQRI GEGVER  
ARAGEHGKGFVAVVANEVRKLSIEDHKKTVSTVSELV-----NNTNTQJENIVSKHIKDVNEL

R1

\*\*\* \*\*

Tsr 510  
HemAT-Hs 469  
HemAT-Bs 428

VIRVTDINGEIASASDEQSRGIDQVGLAVAEMDRVTQQNAALVEESAAAAALEEQASRLTE  
VEEAMETLQEITDAVEDAASCMQEVSTATDEQAVSTEEVAEMVDGVDDRAGEIAAALDDIAD  
VSESKEKNTQINRLFDEIAVHSNKKISKEQSGKIDVDLQAEELGGLQEVSRVASHVAASVDSLVI

Tsr 536  
HemAT-Hs 489  
HemAT-Bs 432

AVAVFRIQQQRETSAVVKTVTPAAP  
AT-----DQQVRTVEEVRETVGKLS  
LT-----EE

SEQ. ID. No. 79  
SEQ. ID. No. 80  
SEQ. ID. No. 81

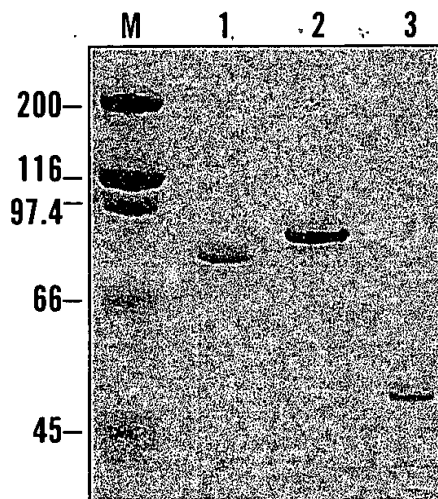
FIG. 1B  
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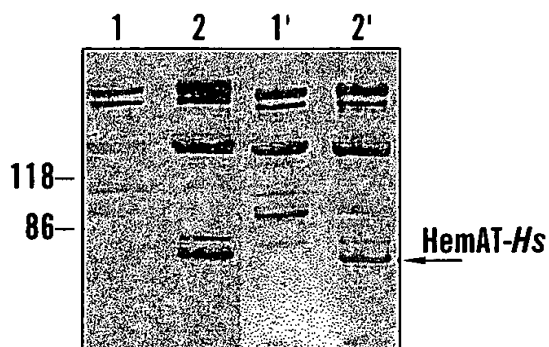
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**FIG. 2A**

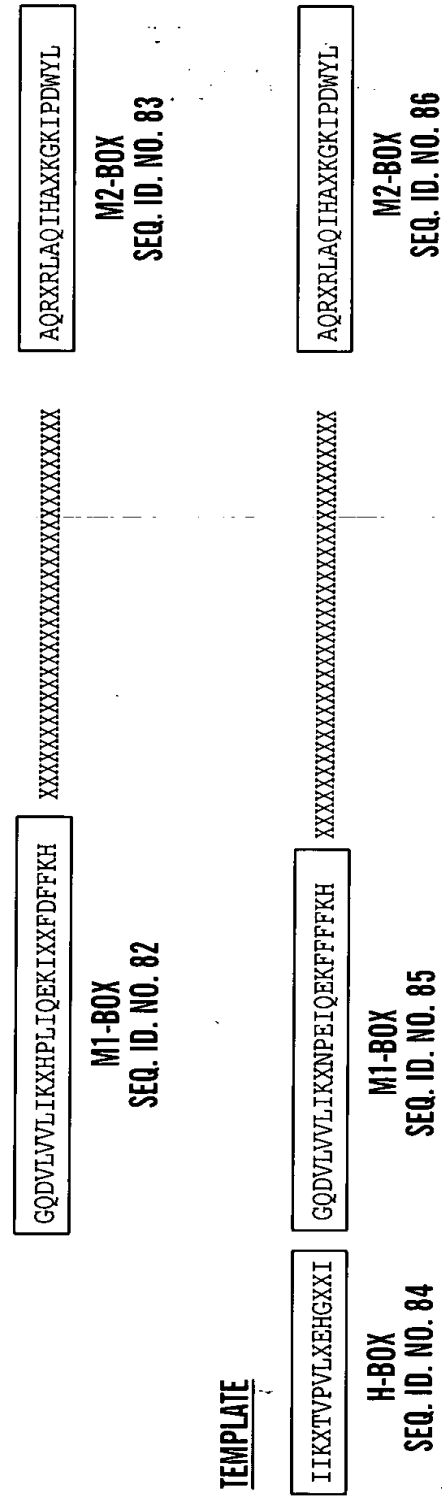


**FIG. 2B**

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MYOGLOBIN-LIKE PROTEIN (MbLP)



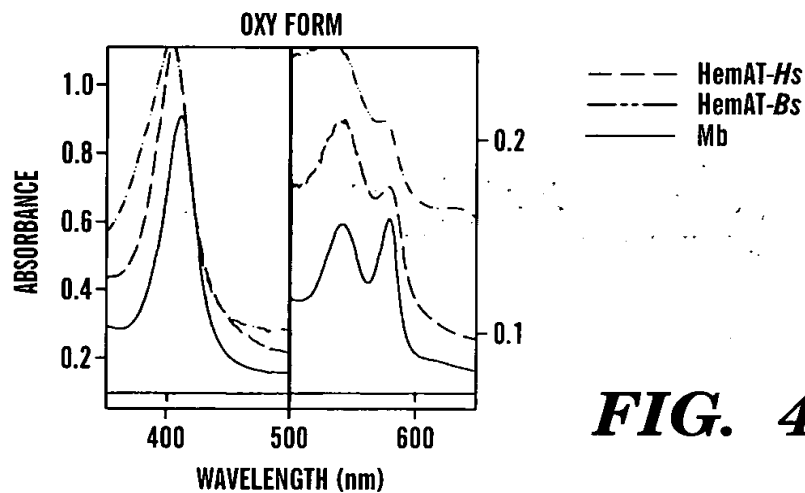
THE TWO SEQUENCES USED IN THE ANALYSES. M1 AND M2 ARE THE SITE OF MYOGLOBIN RECOGNITION. M2 IS THE SITE OF Hemat RECOGNITION. THE H-BOX IS THE SITE PRIMARILY OF MICROBIAL HEMOGLOBIN RECOGNITION.

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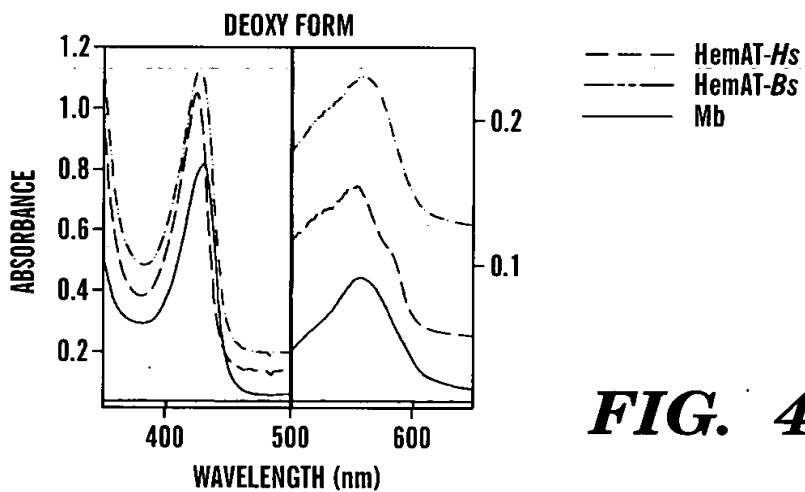
**FIG. 3**



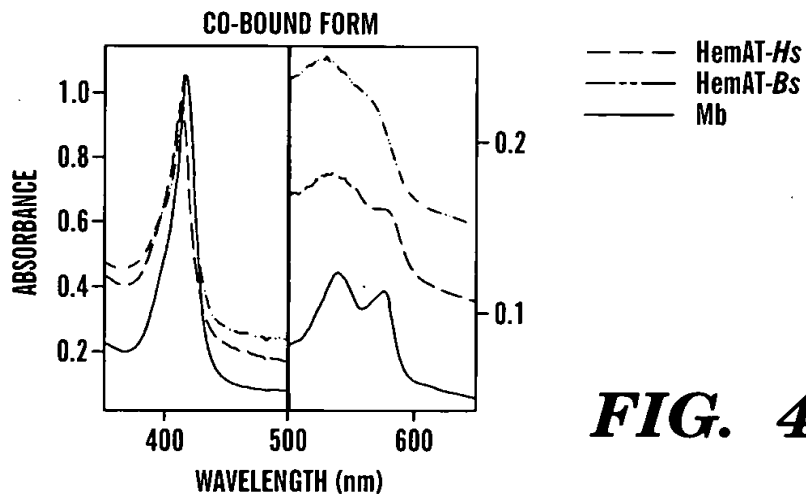
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**FIG. 4A**



**FIG. 4B**

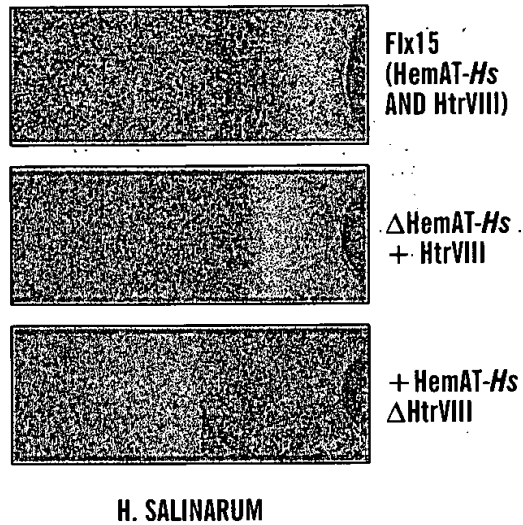


**FIG. 4C**

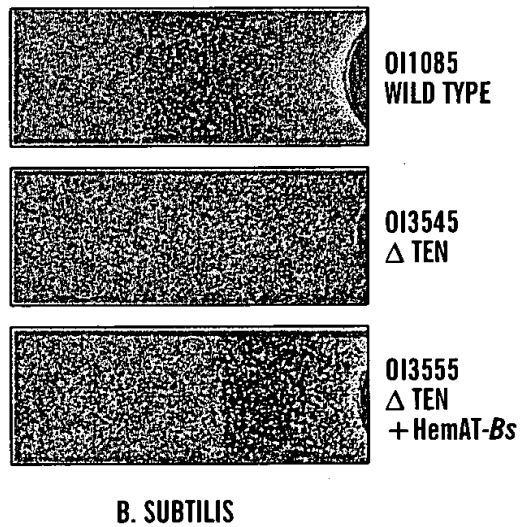
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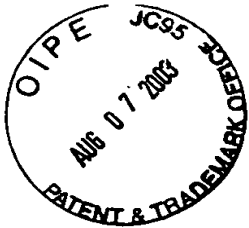


**FIG. 5A**

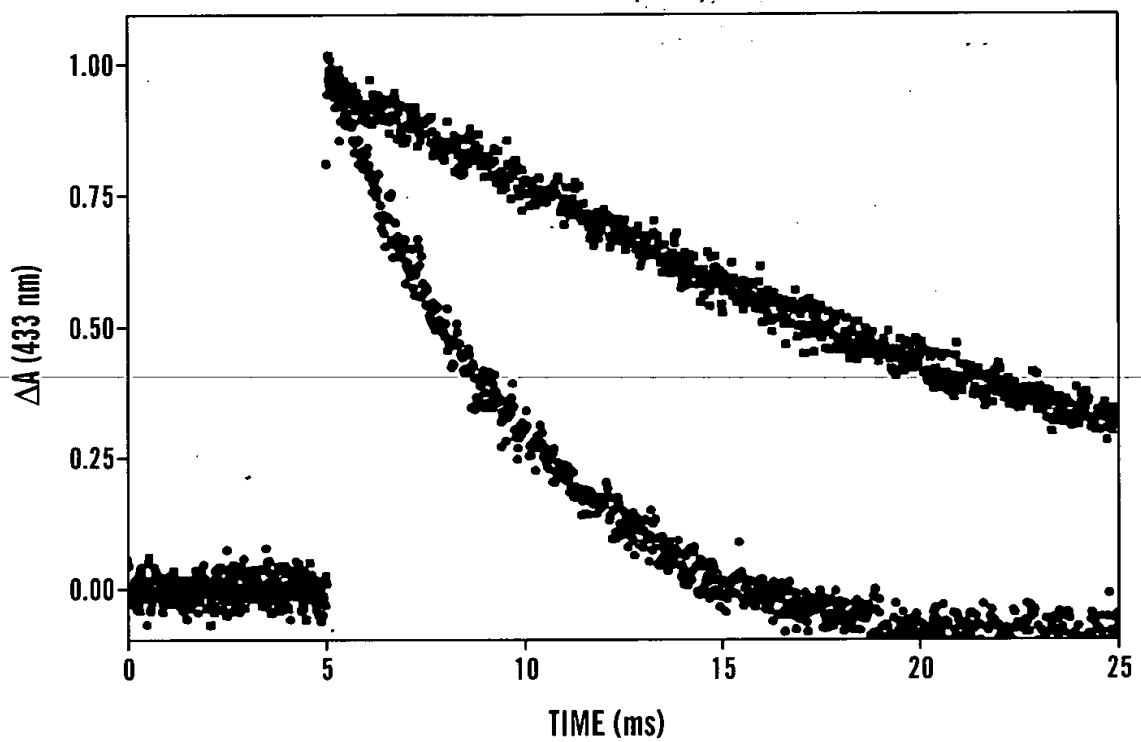


**FIG. 5B**

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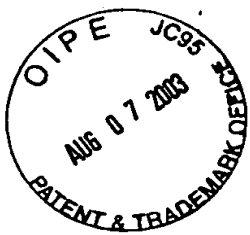


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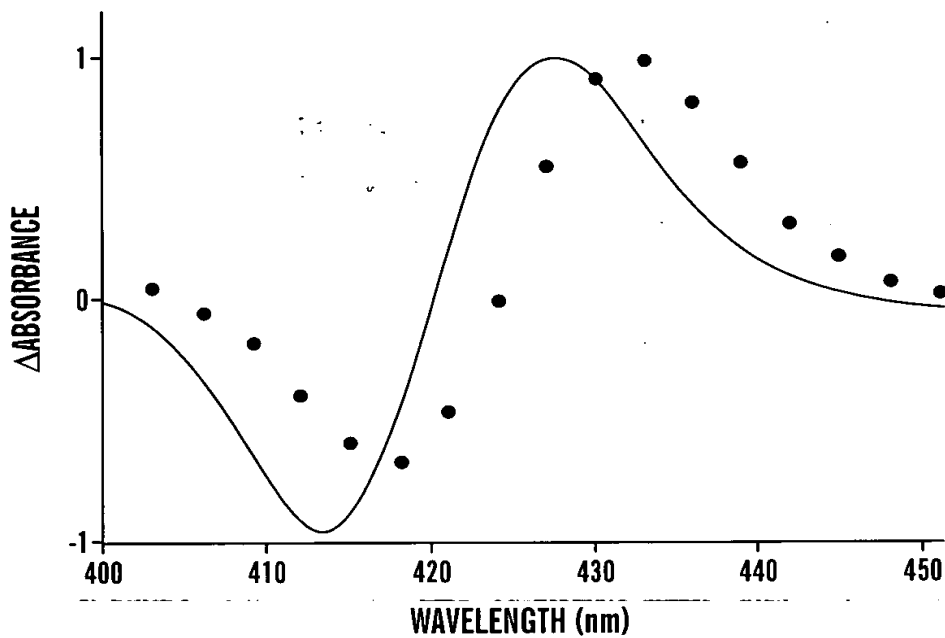


**FIG. 6**

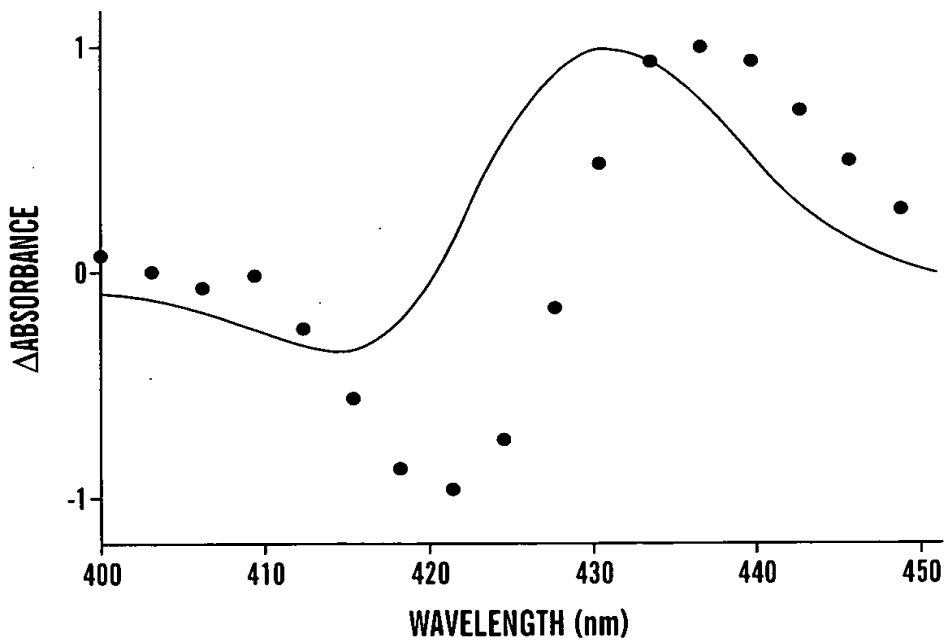
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**FIG. 7A**



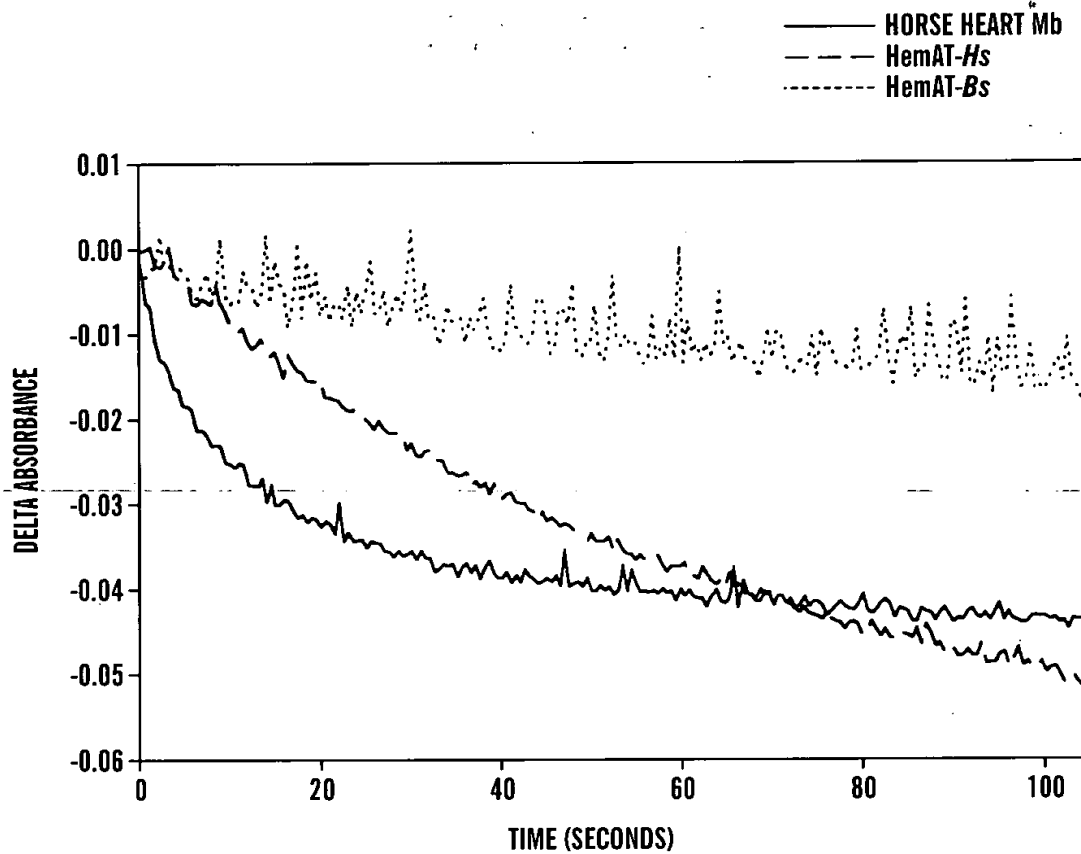
**FIG. 7B**

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**FIG. 8**

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